

State of Michigan Approved Tablet Comparison Guide

As of 5/12/2015

For the purpose of this document, we define a **true tablet** as a device which has a detachable keyboard that is not required for the device to function. There are two true tablet machines in iTRAC: the [Microsoft Surface Pro 3](#) and the [Lenovo Helix 2](#). The Lenovo Yoga Ultrabook 12 is considered a **convertible laptop**: it is a full laptop that converts into a touchscreen tablet system with a 360 degree convertible screen. (Lenovo also markets a tablet under this product name, but that device is **not** on the state contract.) The [Lenovo X1 Carbon](#) is an **ultra-lightweight** laptop. All of these systems can function as a laptop/desktop replacement for any standard type of use. None of these systems have a built-in Ethernet port. For this reason we suggest purchasing a docking station and USB network adapter if your device is intended to be used as a laptop/desktop replacement.

NOTE: Numbers listed in this document (TXX) are ITRAC numbers.

How to decide which machine is best for you

The decision will be based primarily on personal preference, but these facts may help you decide on the device that is the best fit for you:

- If you are looking for an ultra-lightweight laptop, the X1 Carbon should be considered.
- If you are looking for a laptop which can convert to a tablet, the Yoga 12 should be considered.
- If you are looking for a true tablet, the Surface Pro or the Helix 2 should be considered.
- If you require a Mobile Broadband Card, the Helix 2 and X1 Carbon should be considered.

Details on each model follow

Surface Pro 3 – This is a true tablet system: it is a touch screen device with no permanently attached keyboard.

Operating System

Windows 8.1 Pro

Exterior

Dimensions: 11.5" x 7.92" x 0.35" • Weight: 1.76 lbs.

Storage and RAM

256GB or 512GB SSD version with 8GB RAM

Display

Screen: 12" ClearType Full HD Plus Display • Resolution: 2160 x 1440 • Aspect Ratio: 3:2 • Touch: 10-point multi-touch



CPU & Wireless

Intel Core i5 or i7 Processor options • System memory: 8GB • Wireless: Wi-Fi 802.11ac/802.11 a/b/g/n • Bluetooth 4.0

Battery Life

9 hours (per Manufacturer's Estimate)

Cameras, Video & Audio

Two 5MP HD cameras, front and rear-facing • Stereo microphones • Stereo speakers with Dolby sound

Ports

Full-size USB 3.0 • microSD card reader • Headphone jack • Mini DisplayPort • Cover port

Warranty

3 year warranty (**Note:** Requires shipping to vendor.)

Surface Pro - Recommended Accessories:

- T26 – USB 3.0 Docking station – This docking station allows for multiple monitors and other devices to connect to the tablet, and it includes an Ethernet port. It does **not** charge the Surface, so the regular power cord must be used as well.
- T33 – Surface Pro Power Adapter – This is an extra power cable.
- T30 – Surface Pro Type Cover – this is a keyboard **and** cover.
- T31 – Satechi 3-port Portable USB 3.0 Hub + Network adapter– This portable USB hub allows for multiple USB devices to be connected to the Surface Pro. This is important because the Surface Pro has only one USB port. In addition, this device has an Ethernet port which allows for a wired connection to a network.

Helix 2 - This is a true tablet system: it is a touch screen device that can be used with or without the included Helix Pro Keyboard.

Operating System

Windows 8.1

Exterior

Dimensions: 11.85" x 7.57" x 1" •
Weight: 2.98 lbs.



Storage and RAM

256GB SSD with 8GB RAM

Display

Screen: 11.6" 16:9 Full HD • Resolution: 1920 x 1080 • Touch: 10-point multi-touch

CPU & Wireless

Intel Core i7 Processor • System memory: 8GB • Wireless: 802.11ac & 802.11 a/g/n • Bluetooth2

Battery Life

Up to 8 hours (per Manufacturer's Estimate)

Cameras, Video & Audio

2MP 1080p/5MP • Intel HD graphics 5300 • Digital microphone • Stereo speakers with Dolby Home Theater sound v. 4

Ports

USB 3.0 • microSD card reader • Headphone jack • Micro HDMI • USB 2.0 w/Ultrabook keyboard

Warranty

4 year warranty with onsite support.

Helix 2 - Recommended Accessories:

- T31 – Satechi 3-port Portable USB 3.0 Hub + Network adapter – This portable USB hub allows for multiple USB devices to be connected to the Helix. This is important because the Helix has only one USB port. In addition, this device has an Ethernet port which allows for a wired connection to a network.

Optional Accessories:

- T38 – This docking station allows for multiple monitors and other devices to connect to the tablet, and it includes an Ethernet port. It does **not** charge the Helix, so the regular power cord must be used as well.
- T41 – Helix Digitizer pen – This is an extra Pen.
- T42 – Helix 12" Fitted Reversible Sleeve – a cover.
- T18 – Helix 14" Fitted Reversible Sleeve – a cover.
- T44 – Helix Pro Keyboard – Additional custom-fit keyboard with built in battery.
- T39 – Helix Protector Case
- T40 – Helix Quickshot Cover
- T43 – 36w DC Adapter
- T46 – 36w AC Adapter

Yoga 12 – This is a convertible laptop/tablet system.

Operating System

Windows 8.1

Exterior

Dimensions: 12.44" x 0.74" x 8.70" •
Weight: 3.48 lbs.

Storage and RAM

256GB SSD with 8GB RAM

Display

Screen: 12.5" HD Multitouch • Resolution: 1920 x 1080

CPU & Wireless

Intel Core i7 Processor • System memory: 8GB • Wireless: Intel 7265 ac/b/g/n Dual Band
Wireless • Bluetooth 4.0

Battery Life

8 hours (per Manufacturer's Estimate)

Cameras, Video & Audio

720p Camera • Intel HD Graphics 5500 • Dual Array microphone • Stereo speakers with Dolby
Advanced audio • Combo Headphone/Microphone port

Ports

4-in-1 media card slot • HDMI • Lenovo OneLink

Warranty

4 year warranty with onsite support.

Yoga - Recommended Accessories:

- T09 – Carbon/Yoga OneLink Pro Dock – This docking station allows for multiple monitors and other devices to connect to the tablet. This docking station also **provides charging**, and includes an Ethernet port. This may require additional cables for multiple monitors.
- T31 – Satechi 3-port Portable USB 3.0 Hub + Network adapter– This portable USB hub allows for more USB devices to be connected to the Yoga. In addition, this device has an Ethernet port which allows for a wired connection to a network.



Optional Accessories:

- T11 – Yoga 65W Slim AC Adapter – an additional power adapter.
- T12 – Yoga Pen – an additional stylus.
- T19 – ThinkPad Business Topload Case – a carrying case.

X1 Carbon – This is an ultra-lightweight laptop with a backlit keyboard.

Does not detach from keyboard.

Operating System

Windows 8.1

Exterior

Dimensions: 13.0" x 8.9" x 0.8" • Weight: 2.877 lbs.

Storage and RAM

256GB SSD with 8GB RAM

Display

Screen: 14" Full HD TN Display • Resolution: 2560 x 1440 • Touch: 10-point multi-touch

CPU & Wireless

Intel Core i7 Processor • System memory: 8GB • Wireless: Wi-Fi 802.11ac/802.11 a/b/g/n

Battery Life

10.9 hours (per Manufacturer's Estimate)

Cameras, Video & Audio

720p camera • Intel HD Graphics 5500 • Digital Dual Array microphone certified for Microsoft Lync • Dual speakers with Dolby Home Theater

Ports

2 USB 3.0 • Headphone/Microphone combo • OneLink Dock port • HDMI • Mini DisplayPort • Ethernet extension connection (Micro USB to Ethernet adapter)

Warranty

4 year warranty with onsite support.



X1 Carbon – Recommended Accessories:

- T09 – Carbon/Yoga OneLink Pro Dock – This docking station allows for multiple monitors and other devices to connect to the tablet. This docking station also **provides charging** and includes an Ethernet port. This may require additional cables for multiple monitors.
- T31 – Satechi 3-port Portable USB 3.0 Hub + Network adapter– This portable USB hub allows for multiple USB devices to be connected to the X1 Carbon. This is important because the Carbon has only one USB port. In addition, this device has an Ethernet port which allows for a wired connection to a network.


Optional Accessories:

- T08 – X1 Carbon 65W Slim AC Adapter – an additional power adapter.
- T19 – ThinkPad Business Topload Case – a carrying case.

Comparison

	Helix 2	Carbon	Yoga		Surface	
	T45	T32	T37	T29	T34	T35
Processor	i7	i7	i7	i5	i7	i7
Mobile Broadband	Yes	Yes	No	No	No	No
WLAN	Yes	Yes	Yes	Yes	Yes	Yes
Storage	256 SSD	256 SSD	256 SSD	256 SSD	256 SSD	512 SSD
Keyboard	Detachable	Attached	Attached	Detachable	Detachable	Detachable
Front Cam	Yes	Yes	Yes	Yes	Yes	Yes
Rear Cam	Yes	No	No	Yes	Yes	Yes
Memory	8GB	8GB	8GB	8GB	8GB	8GB
Pen	Optional	No	Optional	Optional	Optional	Optional
Warranty	4yr On-Site	4yr On-Site	4yr On-Site	3yr Mail-In	3yr Mail-In	3yr Mail-In
Screen	11.6"	14"	12.5"	12"	12"	12"
Weight (min)	1.8 lbs.	2.8 lbs.	3.52 lbs.	1.76 lbs.	1.76 lbs.	1.76 lbs.
USB Ports	2 x USB 3.0	2 x USB 3.0	2 x USB 3.0	1 x USB 3.0	1 x USB 3.0	1 x USB 3.0
Display Ports	Mini DP	Mini DP/HDMI	Mini HDMI	Mini DP	Mini DP	Mini DP

Accessories

Accessory	Helix	Carbon	Yoga	Surface Pro
Docking Station	T38	T09	T09	T26
Keyboard	T44	Built In	Built In	T30
Adapter	T43	T08 (65w)	T11 (65w)	T33
Digitizer Pen	T41	N/A	T12	N/A
Case	T39	T19	T19	N/A
Cover	T40	N/A	N/A	See keyboard
Dell Touchscreen Monitor	T36	T36	T36	T36
Satechi USB Adapter 	T31	T31	T31	T31